

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

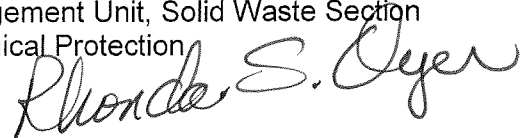
TO: Elizabeth Browne, Chief, Office of Waste Management and Radiological Protection

Steven R. Sliver, Chief, Solid Waste Section, Office of Waste Management and Radiological Protection

FROM: Rhonda S. Oyer, Chief, Sustainable Management Unit, Solid Waste Section
Office of Waste Management and Radiological Protection

DATE: February 5, 2013

SUBJECT: Scrap Tire End-Use; Estimated Usage and Capacity 2011



The attached table represents the Office of Waste Management and Radiological Protection (OWMRP) staff's best estimate of the current usage and capacity of existing and potential scrap tire material end-users. Information provided is based on current permits issued, reported use in calendar year 2011, and staff's knowledge of usage based on market contacts.

This table was updated from a previous table for 2010 data. A comparison of the 2010 and 2011 table (Table 1, Page 5) shows usage of scrap tires continues to grow. The number of Passenger Tire Equivalents (PTEs) accounted for on the table far surpasses the EPA estimate of ten million PTEs produced annually in the State of Michigan. This is due to a number of factors concerning how this information is collected: First is the lack of mandated reporting. This makes a true understanding of the flow of material from scrap tires to commodity or end use difficult to accurately represent. Second, is inaccurate record keeping by those that are required to report through the registration, commodity and processor bond exemption, and end-user certification processes. Third, the number of PTEs reported as burned for Tire Derived Fuel (TDF) out paces the annual generation estimate alone. Some TDF is being imported from surrounding states, along with scrap tires from surrounding states that are being processed by Michigan facilities. Fourth, there is also "double-counting" of PTEs occurring. The processors report the amount of TDF and other commodities they are creating and the end-users then report the amount they are using, resulting in these PTEs being counted multiple times. Finally, the numbers reported by out-of-state haulers and end-users are difficult to verify (Table 2). Staff relies on contacts with these haulers along with the numbers reported on their registrations. Many of them are reporting more than what they actually use from Michigan sources and report tires from other locations in the numbers they provide. The annual generation estimate should also not be considered to be foolproof. This is the best estimate of the tire industry and has not been changed in almost 20 years. It is based on the premise that each person in the population generates one scrap tire per year.

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An audit of the previous year's reporting methods demonstrated that a better understanding of the trends could be attained by changing the reporting to show the breakdown between end users, diversion, and scrap tire commodities. Even given the issues with the collection of this information, the table does allow for a mostly accurate understanding of the trends that surround tire commodity creation and market use. TDF usage continues to grow with approximately 25,559 additional tons burned in 2011. The category listed as "Other" which includes commodities such as crumb rubber, TDF, drain field material, and rubber rock increased drastically by 69,087 tons. Much of this trend is being hampered by the influx of low cost crumb from Canadian subsidized markets. Reused/Retread tires increased by 1,867 tons. This is an important factor because retread/reuse tires keep what would otherwise have been a scrap tire from becoming one because there is still viable use left in the product. The creation of Sidewall rings decreased by a two-thirds margin, this is due to a combination of a dwindling market due to the economic downturn and an increase in demand for TDF.

Most of the drastic changes in the amount of material used are due to changes in the way the data was collected. A more inclusive approach was implemented in hopes of better demonstrating the market trends as well as the effectiveness of the Scrap Tire Program. It is important to note that many of the reported numbers of tires used have increased while the actual availability of scrap tires has decreased for a variety of reasons.

Attachments

cc: Scrap Tire Advisory Committee
Scrap Tire Staff, DEQ
Michael Marshall, DEQ

**Current Usage and Capacity of Existing
and Potential Scrap Tire End-Users
2011**

End Use	Annual permitted capacity (in tons)	Reported Use		Notes
		in tons	PTE	
Reuse/Retreading				
CM Rubber Technologies Coleman, MI grade tires		552	55,232	
Olson Tire Mt. Pleasant, MI retread		154	15,400	
Alma Tire Alma, MI retread		180	18,000	
Belle Tire Allen Park, MI retread		910	91,000	
Belleroc Tire Wyoming, MI retread		390	39,000	
First Class Tire Shredders Clio, MI grade tires		116	11,640	
Dependable Tire Warren, MI retread		203	20,300	
Jerry's Tire Flint, MI retread		110	10,983	
Ginman Tire Muskegon, MI retread, used tires		75	7,481	
Leslie Tire Mt. Clemens, MI retreads		120	12,000	
Meekoff Tires Grand Rapids, MI retread		495	49,480	
Schrader Tire and Oil Melvindale, MI retread		105	10,500	
Union Tire Ann Arbor, MI retread		104	10,400	
Wingfoot (Goodyear) Howell, MI retread		384	38,400	
Wonderland Tire Wayland, MI retread		260	26,000	
Silver Lining Recycling Wyandotte, MI grade tires		1,287	128,694	
Total		5,445	544,510	

**Current Usage and Capacity of Existing
and Potential Scrap Tire End-Users
2011**

Landfill Usage (alternate daily cover, liner protection, lechate/gas collection)				
Landfill				Notes
		in tons	PTE	
Granger: Wood St. and Grand River Landfills; Lansing, MI lechate/gas collection systems		3,180	318,000	
Marquette County Solid Waste Management Authority certified end-user- daily cover, ADC		108	10,831	tires use to hold down tarps over waste
Westside Recycling and Disposal lechate/gas collection systems, ADC		1,260	126,000	
Venice Park Recycling and Disposal, Lennon, MI ADC				approved in license but has not used tires
K & W Landfill Ontonagon, MI ADC				approved in license but has not used tires
Dafter Sanitary Landfill, Chippewa County ADC				approved in license but has not used tires
Michigan Environs, Inc., Menominee, MI ADC				approved in license but has not used tires
Pitsch Sanitary Landfill Belding, MI ADC				Has not used scrap rubber since lining cell
Ottawa County Farms Landfill Coopersville, MI ADC				approved in license but has not used tires
City of Midland Sanitary Landfill, Midland, MI ADC				approved in license but has not used tires
SE Berrien County Landfill Buchanan, MI ADC		4,671	467,100	receive from Entech, Cobalt, Deerpath when their on-hand gets too high
Peoples Landfill Inc. Birch Run, MI ADC				approved in license but has not used tires
Tri-City Recycling and Disposal Facility, Carsonville				approved in license but has not used tires
Sauk Trail Hills Canton, MI ADC				approved in license but has not used tires
Central Sanitary Landfill Cannonsville, MI ADC				approved in license but has not used tires this seems to be due to lack of supply
Brent Run Landfill Montrose, MI ADC		2,806	280,584	
Total		9,219	921,931	

**Current Usage and Capacity of Existing
and Potential Scrap Tire End-Users
2011**

<i>Tire Derived Fuel (TDF) Users</i>				
Facility Information	Annual permitted capacity (in tons)			Notes
		in tons	PTE	
American Resource Recovery Permit No. 9-94 Issued 7/27/1994	5 million/year capacity (not currently burning TDF)	0	0	0
Hillman Power, Hillman Permit No 687-86G Issued 3/13/2002 SRN N1266 ROP 199600190	20,000	11,477	1,147,700	not likely to increase capacity due to SO2 emissions
Viking Energy, McBain Permit No. 261-86G Issued 10/1999 SRN N1160 ROP 199600329	16,060	14,453	1,445,300	permit increase in 2001/2002- close to permit allowance shouldn't change
Viking Energy, Lincoln Permit No. 290-86C Issued 1/1997 SRN N0890 ROP 199600397	16,060	11,538	1,153,800	permit increase in 2001/2002- close to permit allowance shouldn't change
Wyandotte Power, Wyandotte Permit No. 253-98A Issued 2/2000 SRN B2132 ROP 199600303 PTI 253-98D	68,150	25,882	2,588,200	recent increase in permit from 21,550 to 68,150 tons
TES (Tondue Energy), Filer Permit No. 519-87F Issued 8/11/2000 SRN N1685 ROP 199600181	35,040	26,030	2,602,960	
Grayling Generating Station Permit No. 882-89E Issued 9/18/2001 SRN N2388 ROP 199600260	16,425	4,839	483,900	
Escanaba Paper Company SRN A0884 ROP 199700059 PTI 259-06	32,220	29,126	2,912,600	
Lanse Warden Electric Co. Permit No. 168-07A-B		13,548	1,354,800	
Total TDF	203,955	136,893	13,689,260	

Current Usage and Capacity of Existing and Potential Scrap Tire End-Users 2011

Out of State Users				
				Notes
		in tons	PTE	
Out of State Processors (see attached table)		21,336	2,133,579	from various out of state haulers
Total		21,336	2,133,579	

Septic Drain Fields				
		Last report data (2009)		Notes
		in tons	PTE	
Central Michigan Health District		66	6,600	approx 5 systems/year due to lack of affordable material
Total		66	6,600	

Other Products				
		2011		Notes
		in tons	PTE	
CM Rubber Technologies Coleman, MI Mulch/Playground/ crumb/ 2" drainfield		7,728	772,800	
Deerpath Recyclers St. Joseph, MI 1/2, 1/4 chips, crumb, septic chips		1,919	191,900	taken from Collection Site Registration
Entech, Inc. White Pigeon, MI rubber rock chips, chips, TDF		45,966	4,596,600	taken from Collection Site Registration
Huffman Rubber Homer, MI Aggregate, TDF, Crumb		8,969	896,900	taken from Collection Site Registration
Silver Lining Wyandotte, MI buffings, Mulch, TDF		28,652	2,865,200	
Environmental Rubber Rec Flint, MI TDF		115	11,500	
Express Tire Recycling Escanaba, MI TDF		103	10,300	
Cobalt Holding, LLC Sturgis, MI Crumb, TDF, Plastic		15,000	1,500,000	
Great American Env. Serv. Kingsford, MI TDF		406	40,610	
First Class Tire Shredders Clio, MI TDF		7,259	725,896	
Total		116,117	11,611,706	

Current Usage and Capacity of Existing and Potential Scrap Tire End-Users 2011

Sidewall Rings				
CM Rubber Technologies		567	50,463	
Huffman Rubber		2,471	247,100	taken from Collection Site Registration
Entech		420	42,000	taken from Collection Site Registration
Total		3,458	345,800	

Table 1 Use Comparison

	2011		2010	
Totals	Tons	PTE	Tons	PTE
End Uses				
Landfill Usage	9,219	921,931	413	41,265
TDF	136,893	13,689,260	111,334	11,133,398
Total	146,112	14,611,191	111,747	11,174,663
Diversion				
Reuse/Retread	5,445	544,510	3,578	357,776
Out of State	21,336	2,133,579	28,379	2,837,897
Total	26,781	2,678,089	31,957	3,195,673
Products				
Septic	66	6,600	3,300	330,000
Sidewall Rings	3,458	345,800	10,545	1,054,502
Other	116,117	11,611,706	47,030	4,702,993
Total	119,641	11,964,106	60,875	6,087,495

*This table represents the Office of Waste Management and Radiological Protection staff's best estimate of the current usage and capacity of existing and potential scrap tire material end-users. Many end users are not mandated to report tire commodity usage; therefore this table only includes information voluntarily reported to the Department. Additionally, many of the processors report the creation of a commodity that is then reported as used by an end user.

Glossary

Out of State User = Tires were generated in Michigan and taken outside the state for use/disposal.

PTE = Passenger Tire Equivalent based on 1 PTE = 20 lbs (Increased to 22.5 lbs in 2012)

PTI = Permit to Install. The permit required for new or modified equipment or a change in the method of operation of existing equipment which causes certain increases in emissions.

ROP = Renewable Operating Permit. Old PTIs are voided and the conditions are placed into the ROP. New PTIs are also eventually rolled into the ROP for a major source of air emissions.

SRN = State Registration Number, which does not change for a site even when names or numbers change. It is the most certain way to identify correct information for a facility.

Current Usage and Capacity of Existing and Potential Scrap Tire End-Users 2011

End-user = means any of the following:

- (i) A person who possesses a permit to burn tires under part 55.
- (ii) The owner or operator of a landfill that is authorized under the landfill's operating license to use scrap tires.
- (iii) A person who uses a commodity to make a product that is sold in the market.
- (iv) A person who is authorized by this part to accumulate scrap tires, who acquires scrap tires, and who converts scrap tires into a product that is sold in the market or reused in a manner authorized by this part.

Table 2: Out of State Haulers and End Uses

Company name	contact	phone	category	2011 Numbers		end use	delivery location
				tons	PTE		
Alternative Two	Ken Schumacher	574-299-0559	Recycleable Material Merchant Wholesaler	112	11,236	hauler	Deerpath
Auburndale Recycling Center INC	Theresa Hansen	715-652-3622	Recycleable Material Merchant Wholesaler	338	33,821	processor	Auburndale, WI
Bay Enviro Tire INC	Bruce Phillips	920-469-1532	Recycleable Material Merchant Wholesaler	12	1,200	hauler	Green Bay, WI
Bee Line Transportation INC	Beverly Busche	715-623-5085	Recycleable Material Merchant Wholesaler	1,020	102,000	hauler	Antigo, WI
Enviro Tire Recycling	William Frankart	419-934-0535	Recycleable Material Merchant Wholesaler	2,940	293,957	hauler	Entech, White Pigeon MI
Liberty Tire Services of Ohio	Ken Lakin	773-871-6260	Recycleable Material Merchant Wholesaler	67	6,742	processor	Chicago IL
Liberty Tire Services of Ohio LLC	John Dillon	517-656-3429	Recycleable Material Merchant Wholesaler	1,096	109,551	processor	North Liberty, IN
Lightner Tire Company	Les Lightner	330-724-7436	Recycleable Material Merchant Wholesaler	793	79,349	hauler	St. Martin, MN
LKQ Tire & Recycling INC	Natalie Kimbrell	708-239-6554	Recycleable Material Merchant Wholesaler	182	18,200	hauler	Deerpath Dowagiac, MI
Paul's Auto Yard INC	Paul Schafer	219-785-2613	Recycleable Material Merchant Wholesaler	6,247	624,700	hauler	County Line Landfill Wheatland, IN
Pomp's Tire Service INC	Jim Wochinske	920-435-8301	Recycleable Material Merchant Wholesaler	287	28,650	hauler	Liberty Tire Savage, MN
Sparks Commercial Tire INC	David Sparks	419-422-0733	Recycleable Material Merchant Wholesaler	1,500	150,000	hauler	Liberty North Liberty, IN
Stansley Industries INC	Carrie Aker	419-841-6960	Recycleable Material Merchant Wholesaler	5,125	512,500	hauler	Silver Lining Recycling Wyandotte, MI
Tire Reclaimers LLC	James Shreiner	574-596-9852	Recycleable Material Merchant Wholesaler	1,467	146,700	hauler	Entech, White Pigeon MI
Waste Management of Ohio INC	Dale Sperling	419-666-5136	Recycleable Material Merchant Wholesaler	16	1,573	hauler	Environmental Rubber Recycling Flint, MI
Whitewall Tire Company	Richard Larson	920-683-2043	Recycleable Material Merchant Wholesaler	134	13,400	hauler	Liberty Tire Auburndale, WI
total:				21,336	2,133,579		